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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,604	12/20/2005	Peter Bilowol	A-9822	6462
7590 Hoffman Wasson Gitler Crystal Center 2 Suite 522 2461 South Clark Street Arlington, VA 22202				
			EXAMINER HUZ, OMAR F	
			ART UNIT 3633	PAPER NUMBER
			MAIL DATE 03/10/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/561,604

**Applicant(s)**

BILOWOL, PETER

**Examiner**

OMAR HIJAZ

**Art Unit**

3633

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 26-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 29, 2009 has been entered.

This communication is a Non-Final rejection Office Action on the merits. Claims 26-34, 37-43, 47, and 48 have been amended and claims 1-25 have been previously cancelled. Claims 26-48 are now pending and have been considered below.

### ***Response to Amendment***

1. The previous drawing objections have been withdrawn in light of applicant's amendments.
2. The previous drawing objections have been withdrawn in light of applicant's amendments.
3. Some of the previous 35 USC 112 rejections are withdrawn in light of applicant's amendments.

### ***Claim Objections***

4. Claims 31 and 40 are objected to because of the following informalities:

As per claim 31, at lines 1-2, the recitation "straps, beams, and angle irons" is understood to mean --straps, beams, or angle irons--, for consistency.

As per claim 40, at line 2, the recitation "a plurality of spacers" is understood to mean --said plurality of spacers--, for consistency.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 26-37 and 39-48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claims 26, 34, 37, and 42 there is inadequate written description in the specification of the "individual modules or panels which are not spaced and tied and transversely opposed" and similarly the "unspaced and untied modules". It is unclear as how the modules are "not spaced" or "unspaced"; not spaced with respect to what?

As per claims 33, 37, and 40, there is inadequate written description of "individual transversely opposed" modules. It is unclear as to how the modules are "transversely opposed"; an adequate description of this is not clear in the specification.

As per claim 34, there is inadequate written description of "formwork reverse its formation". What is meant by "reverse" and where is this explained in the specification?

As per claims 41 and 42, there is inadequate written description of "assembled association can alternate in a predetermined configuration" and similarly "can be permanently alternating in a vertical or horizontal stacked formation". How are the panels or modules "alternate" or "alternating", and where is this described in the specification?

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 26-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 26, at lines 8-9, the recitation "individual modules or panels which are not spaced and tied and transversely opposed" renders the claim indefinite because firstly, it is grammatically unclear as to which objects the word "not" is referring to. Is it not spaced? Is it not spaced and not tied? Is it not spaced, not tied, and not transversely opposed? There are too many possibilities here and that makes the claim indefinite. Secondly, it is unclear as to which are the "not spaced and tied" panels. There appears to be no indication in the specification as to what is being referred to here. This makes it difficult to examine the claim. In addition, at lines 10-11, the recitation "the spaced and tied modules to individual unspaced and untied modules or panel assembling association" is unclear. Again, which are the "unspaced and untied modules"? In addition, the recitation "panel assembling association" lacks antecedent basis because it is not clearly represented in the specification. In addition, at line 11,

the recitation "can be assembled in many different prearranged configurations" renders the claim indefinite because the phrase "many different prearranged configurations" is ambiguous and indefinite. In addition, at lines 14-16, the recitation "bracing and strengthening the formwork as required with straps, beams, or angle irons which can also accept spacers and ties which can abut and connect to modules or panels", presents functional language mixed in with structural elements referred to in the alternative ("or"), so it is unclear for example what applicant is referring to in the phrase "which can also accept" and can this accept "spacers and ties" or just "spacers"?

As per claim 29, at lines 1-2, the recitation "wherein push-in ties which can attach modules to panels on any vertical or horizontal connectable edge" renders the claim indefinite because this sentence is incomplete and unclear.

As per claim 32, at lines 3-4, the recitation "the spherical border walls" lacks antecedent basis. In addition, at line 3, the recitation "the major surface" lacks antecedent basis. In addition, at line 5, the recitation "which can connect or abut to panels which do not have these features" it is unclear as to what features "these features" is referring to, and how do they connect?

As per claim 33, at lines 1-2, the recitation "wherein individual transversely opposed modules or panels connected, abutted, or held in by the spaced and tied modules" renders the claim indefinite because this sentence is incomplete and unclear.

As per claim 34, at lines 2-3, the recitation "the spaced and tied modules to individual unspaced and untied panels or modules assembling association" is unclear. Again, which are the "unspaced and untied panels or modules"? In addition, at lines 3-4,

the recitation "comprises in any consecutive row of formwork is in reverse formation" renders the claim indefinite because it is unclear as to what a reverse formation is. In addition, the word "any" is indefinite. In addition, at line 3, the term "its" is indefinite.

As per claim 37, at line 2, the recitation "can be surrounded until the formation is staggered or even in a staggered formation" renders the claim indefinite because it is unclear, how the formation can be "even" and "staggered" at the same time. In addition, at line 3, the recitation "on every horizontal and vertical plane" renders the claim indefinite because it is unclear which planes of reference are being referred to.

As per claim 38, the recitation "from a load bearing surface below" renders the claim indefinite because it is unclear as to what the "surface below" is referring to.

As per claim 39, the recitation "in between or other" renders the claim indefinite because it is unclear what "other" is. In addition, it is unclear as to what "of the same" is referring to.

As per claim 41, at line 2, the recitation "assembled association can alternate" renders the claim indefinite because it is unclear and ambiguous. Furthermore it is unclear how they alternate.

As per claim 44, at line 1, the recitation "the bracing devices" renders the claim indefinite because multiple bracing elements have been claimed in claim 26 and claim 43 and it is unclear as to which one applicant is referring to.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 26, 27, 29-31, 33-36, and 38-48, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedran (International Pub. WO 02/48479 A2) in view of Boeshart (U.S. Patent No. 4,936,540).

As per claims 26 and 35, Sedran discloses a method of construction for concrete beams or walls (abstract) comprising the following steps of: setting rows of a plurality of boxing modules in an end to end relationship to create formwork (as illustrated, the modules are in an end to end relation; figure of drawing page 24/27); fastening adjoining surfaces or abutting ends of the modules or panels (as illustrated, the abutting ends of the modules are fastened via pins; figure of drawing page 24/27); spacing the formwork by a plurality of spacers which span between the module panels (as illustrated, the formworks are spaced with round non-labeled spacers between inner and outer modules; figure of drawing page 24/27); individual modules or panels which are not spaced and tied and transversely opposed are placed and connected to the inner front face of the modules which are spaced and tied (as illustrated, there are inner and outer panels which are spaced apart, and adjacent panels are not spaced; figure of drawing page 24/27); bracing and strengthening the formwork as required with straps, (as illustrated, the straps B are shown connecting the modules together; largest figure of drawing page 20/27) which can also accept spacers or ties which can abut and connect to modules or panels (as illustrated, the formworks are spaced with round non-labeled spacers between inner and outer modules; figure of drawing page 24/27); pouring



concrete or any other settable substance into the formwork (for concrete casting; abstract; it is understood that concrete is poured into a formwork).

Sedran fails to disclose the spacers are fixed by bolts or push in ties. However examiner takes official notice that it is common in the art to use different types of fastening mechanisms to secure modules together including the use of bolts and push ties. It would have been obvious to use such fastening means because they are readily available in the field.

In addition, Sedran fails to disclose setting reinforcement means between the formwork as required.

Boeshart teaches a concrete form assembly (abstract) with internal horizontally spaced reinforcing rods 38 (figure 10).

Therefore from the teaching of Boeshart, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the spacer rods of Sedran to include internal horizontal reinforcing bars as taught by Boeshart in order to further strengthen the concrete structure.

As per claim 27, Sedran fails to disclose the spacers may be hollow tubular members or push-in ties.

Boeshart teaches push-ties (brackets 42).

Therefore from the teaching of Boeshart, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the spacer rods of Sedran to include a tie fixing means as taught by Boeshart in order to adjust the spacing between the forms (col. 4, lines 26-29).

As per claim 29, Sedran teaches connecting means which can attach modules to panels on any vertical or horizontal connectable edge (as illustrated, the ties between modules are capable of connecting elements vertically and horizontally; figure of drawing page 10/27).

Sedran fails to disclose the spacers may be hollow tubular members or push-in ties.

Boeshart teaches push-ties (brackets 42).

Therefore from the teaching of Boeshart, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the spacer rods of Sedran to include a tie fixing means as taught by Boeshart in order to adjust the spacing between the forms (col. 4, lines 26-29).

As per claim 30, Sedran teaches the quick release clamping device is a wedge (connection wedges; abstract) which can be pulled out of an open ended slot (the clamping is a wedge and is therefore capable of being pulled out).

As per claim 31, Sedran teaches the straps, are connected to spaced and tied modules as well as individual modules or panels (as illustrated, the straps B are shown connecting the modules together; largest figure of drawing page 20/27) and also act as a clamping device (the straps B join two elements together and are therefore capable of acting as clamping elements).

As per claim 33, Sedran teaches individual opposed modules or panels connected, abutted, or held in by spaced and tied modules (largest figure of drawing page 20/27).

As per claim 34, Sedran teaches the spaced and tied modules to individual unspaced and untied panels or modules of the formwork (as illustrated, the modules may be formed in a horizontal or vertical plane; largest figure of drawing page 10/27).

As per claim 36, Sedran teaches the elements of the straps, are adjusted to increase the strength of the same (as illustrated, the straps B have holes; largest figure of drawing page 20/27; which allow for force adjustment; page 13, lines 10-15).

As per claim 38, Sedran teaches a method of creating a formwork (abstract) for a horizontal column from a plurality of modules supporting the formwork from a load bearing surface below (as illustrated, a column may be formed from the modules; figure on drawing page 213/27).

As per claim 39, Sedran teaches the straps, can accept ties, in between, to increase strength (the straps B include holes and are therefore capable of accepting ties).

As per claim 40, Sedran teaches the joined boxing modules are made parallel by said plurality of spacers spanning between the modules (as illustrated, the formworks are spaced with round non-labeled spacers between inner and outer modules; figure of drawing page 24/27) which are supporting or abutting various connectable surfaces of the unspaced and untied individual modules or panels (as illustrated, the spacers are connected at the module surfaces; figure of drawing page 24/27).

As per claim 41, Sedran teaches the spaced and tied modules to individual module or panel can alternate in a predetermined configuration continuously in any one

row (as illustrated, the modules are capable of being arranged in alternate formations; largest figure on drawing page 10/27).

As per claim 42, Sedran teaches the spaced and tied module to individual unspaced and untied modules or panels can be permanently alternating in a vertical or horizontal stacked formation (as illustrated, the modules may be formed in a horizontal or vertical plane; largest figure of drawing page 10/27).

As per claims 43 and 44, Sedran discloses the formwork is braced and stiffened externally by straps or beams or angle irons, or any combination of the three (as illustrated, two formworks are spaced with spacers B; largest figure of drawing page 20/27) but fails to disclose the formwork is braced and stiffened internally by vertical and horizontal reinforcement bars connected to the spaced ties.

Boeshart teaches a concrete form assembly (abstract) with internal horizontally spaced reinforcing rods 38 (figure 10).

Therefore from the teaching of Boeshart, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the spacer rods of Sedran to include internal horizontal reinforcing bars as taught by Boeshart in order to further strengthen the concrete structure.

As per claim 45, Sedran fails to disclose the modules re rota-moulded, however the method of how the modules are formed holds little patentable weight. It is the structure of the final product which is required to be met by the reference and the Sedran teaches all the structural elements as previously claimed.

As per claim 46, Sedran teaches external comers joined or abutted can create vertical columns (as illustrated, the comers are capable of being formed with vertical columns; figure on drawing page 21/27).

As per claim 47, Sedran teaches the modules are provided with internal or external stiffening (it is possible to stiffen the modular element through the insertion of metal and/or fiber cores; page 5, lines 4-5).

As per claim 48, Sedran fails to disclose vertical and horizontal reinforcing bars which extend from the ends and top and bottom surfaces of the formwork and are connected to the spaced ties to help further stiffen the formwork.

Boeshart teaches a concrete form assembly (abstract) with internal horizontally spaced reinforcing rods (38) which are connected to the spaced ties (122; see figure 10).

Therefore from the teaching of Boeshart, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the spacer rods of Sedran to include internal reinforcing bars connected to spacers as taught by Boeshart in order to further strengthen the concrete structure.

Although Boeshart does not disclose vertical reinforcing bars, it is well known in the art to utilize horizontal and vertical reinforcing bars through a concrete form structure in order to further strengthen the final structure.

8. Claims 28, 32, and 37, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedran (International Pub. WO 02/48479 A2) in view of Boeshart (U.S. Patent No. 4,936,540) in view of Alberti (U.S. Patent No. 6,405,505).

As per claim 28, Sedran teaches the boxing modules are joined utilizing openings in side and end walls of the modules from which quick release clamping devices can be pulled out of an open ended opening (as illustrated, the modules are connected by the pins extending through slots in the sides of the modules; largest figure of drawing page 20/27).

Sedran fails to disclose the openings are slots.

Alberti discloses an interlocking wall form (abstract) whereby the form panels are connected via slots (figure 1).

Therefore from the teaching of Alberti, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the form assembly with the connecting means of Sedran to include slots as taught by Alberti in order to facilitate the assembly of the panels.

As per claim 32, Sedran teaches the individual module comprises a rectilinear front face (largest figure of drawing page 20/27), a peripheral border wall extending from the front face (largest figure of drawing page 20/27) which possesses a plurality of openings in the surface of the modules (as illustrated, there are openings on the edges of the modules; largest figure of drawing page 20/27), two spaced pairs of bolt sockets in surfaces of the module (as illustrated, there are bolted members in panel L; largest figure of drawing page 20/27) and a plurality of opposed openings in the opposite border walls of the module (largest figure of drawing page 20/27) which can connect or abut to panels (as illustrated, the module assemblies are abutting; largest figure of drawing page 20/27).

Sedran fails to disclose the openings are slots.

Alberti discloses an interlocking wall form (abstract) whereby the form panels are connected via slots (figure 1).

Therefore from the teaching of Alberti, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the form assembly with the connecting means of Sedran to include slots as taught by Alberti in order to facilitate the assembly of the panels.

As per claim 37, Sedran teaches modules can be surrounded by individual opposed unspaced and untied modules or panels (as illustrated, the modules are surrounded by opposed faced modules; figure of drawing page 24/27) but fails to disclose a staggered formation.

Alberti discloses an interlocking wall form (abstract) whereby the form panels are in a staggered formation (figure 1).

Therefore from the teaching of Alberti, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the form assembly with the modules of Sedran to include a staggered formation of modules as taught by Alberti in order to further strengthen the assembly of the panels.

### ***Response to Arguments***

9. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that the strap spacers B, as taught by Sedran are not "push-in ties". Examiner agrees, however this limitation was taught in view of secondary reference Boeshart. In addition applicant argues that the "straps B cannot attach to any form of

bracing externally" and "cannot attach or carry any of these heavy exterior items". However it is unclear as to what applicant means by this argument with respect to claims 26 and 35. In addition, applicant has clarified that the "reinforcement" is set between molding faces. This limitation has been corrected to be taught in view of secondary reference Boeshart, which teaches the use of reinforcing bars in a form panel. In addition, applicant argues that the connecting pins of Sedran cannot be "quickly pulled out" however, they are wedges and the term "quickly" is relative. In addition, applicant argues that the "clamping device" cannot be prized out or pulled out, but has to be hammered out. However this is relative subject matter because to one of ordinary skill in the art who may require a hammer, another of the same strength may not require a hammer. In addition, applicant argues that the strap B cannot be considered a clamping device as it is only a tie. However a clamp functionally holds two things together, as does a tie. In addition, applicant argues that Sedran's panel cannot be used in a wall application on a multi-row formwork assembly. However it is important to note that intended use holds little patentable weight. Also multi-row work is shown by Sedran in the large figure on page 10/27. As per applicant's argument of claim 33, this argument is unclear because this claim does not even refer to rows. As per arguments to claims 37-42, please refer to the 112 rejections above. In addition, applicant argues that roto-moulding method of forming the panel is not suggested by the prior art. However the method of how the modules are formed holds little patentable weight. It is the structure of the final product which is required to be met by the reference and the Sedran teaches all the structural elements as previously claimed. In addition, applicant



argues that Sedran does not teach external corners joined or abutted can create vertical columns, because it is a completely different concept to what the applicant wants to patent. However, the examiner believes that all the limitations of this limitation (claim 46), as claimed, are met by Sedran. In addition, applicant has clarified what is meant by "internal stiffening", however this limitation is taught by Sedran because he teaches stiffening the modules using metal or fiber cores (see spec. pg. 5).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR HIJAZ whose telephone number is (571)270-5790. The examiner can normally be reached on Mon-Fri 9:30 a.m. - 7:00 p.m. (alternating Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on (571)272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OFH

/Brian E. Glessner/  
Primary Examiner, Art Unit 3633